

**PROGRAM /COURSE STRUCTURE & SYLLABUS**

**as per the Choice Based Credit System (CBCS)  
designed in accordance with  
Learning Outcomes-Based Curriculum  
Framework(LOCF)**

**of National Education Policy (NEP) 2020  
for Undergraduate Program in  
COMPUTER APPLICATION**

**B.A.HONOURS IN  
COMPUTER APPLICATION PROGRAMME  
AS PER NEP 2020**

**(Effective from June-2023)**

**SEMESTER 5- THIRD YEAR B. A.**  
**Discipline specific course –Minor**

Semester	Course No	Title of Course	Paper Name	Topic	Credit Total [04]	
					Theory	Practical.
<b>5</b>	<b>DSC-C COMP - 354</b>	Computer Applications	Introduction to CMS and WordPress	Introduction to CMS and Word press	<b>50%</b>	<b>50%</b>
<b>5</b>	<b>DSC-C COMP - 355</b>	Computer Applications	Introduction to Data Base Management System	Ms- Access	<b>50%</b>	<b>50%</b>

**Teaching Methodology:** lectures, practical sessions, demonstrations, group work, and assignments—specifically designed for Arts/Commerce students

**GUJARAT UNIVERSITY**  
**COMPUTER SYLLABUS FOR BA**

**SEMESTER – V**

**Title of Course: COMPUTER APPLICATIONS**

**Discipline specific course –Minor**

**MINOR COURSE CODE: DSC-C COMP –354**

**COURSE NAME: INTRODUCTION TO CMS AND WORDPRESS**

**Objectives:**

- To introduce learners to the basics of digital content creation and management using CMS tools.
- To empower students to create and maintain blogs, websites, and digital portfolios using WordPress.
- To develop digital literacy and self-expression through content publishing.
- To enhance students' understanding of user engagement, information architecture, and website usability through Lab exercises.
- To promote creativity and entrepreneurship in the arts and humanities domain.

**Unit 1: Introduction to Content Management Systems**

- Definition and purpose of a CMS: Overview of content management systems and their role in digital publishing.
- Types of CMS: WordPress, Joomla, Drupal, and their applications in industry (e.g., artist portfolios, literary blogs).
- Importance of digital presence: Using CMS for professional branding, exhibitions, or cultural storytelling.
- Benefits of CMS: Accessibility, ease of use, and creative control.
- Case studies: Examples of WordPress websites (e.g., artist/writer portfolios, music blogs, cultural archives).
- CMS applications in arts, culture, literature, journalism

**Unit 2: Setting Up and Navigating WordPress**

- WordPress.com vs. WordPress.org: Differences, hosting options, and choosing the right platform for projects.
- Installing WordPress: Setting up a local or hosted WordPress site (e.g., using free hosting like 000webhost or local tools like XAMPP).
- WordPress dashboard: Overview of key features (posts, pages, media, users).
- Creating a site structure: Planning pages for portfolio (e.g., Home, About, Gallery, Blog).
- Basic settings: Permalinks, site title, tagline, and user roles for collaborative projects.

**COMPUTER APPLICATIONS- Minor****Unit 3: Content Creation and Aesthetic Design**

- Designing menus and navigation for user-friendly website structure
- Customizing site layout using widgets and visual page builders like Elementor
- Creating content: Writing posts (e.g., blog posts about art exhibitions) and pages (e.g., portfolio gallery for visual art).
- Classification and organization of content using categories and tags
- Media management: Uploading and organizing images, videos, or audio files (e.g., music clips or art exhibition videos).
- Themes for website: Selecting and installing WordPress themes (e.g., Astra, Neve) suitable for creative portfolios.
- Design principles: Color theory, typography, and layout for visually appealing websites.
- Accessibility: Ensuring content is accessible (e.g., alt text for images, readable fonts).

**Unit 4: Advanced Customization and Promotion**

- Plugins: Installing plugins for galleries (e.g., Envira Gallery), SEO (e.g., Yoast SEO), and social media integration (e.g., Social Warfare).
- Basic customization: Using the WordPress Customizer and commercial/social themes to modify layouts or colors.
- Introduction to HTML/CSS: Simple edits to enhance design (e.g., changing font sizes or background images, adding custom headers).
- Promoting content: Sharing websites on social media, integrating newsletters (e.g., Mailchimp plugin), and optimizing for search engines.
- Security and maintenance: Backing up sites, updating WordPress/themes/plugins, and securing with plugins (e.g., Wordfence).
- Plugins for use cases: Installing free plugins for galleries (e.g., Envira Gallery Lite), and SEO (e.g., Yoast SEO).

**List of Practical exercises:****WordPress for website design as blogging tool**

1. WordPress account creation
2. Blog post creation with multimedia
3. Theme customization and plugin setup
4. Creating a personal /organisational digital portfolio
5. Peer review of published sites
6. Creating an FAQ Page
7. Designing a Contact/Query Page (Manual or Form-based)
8. Simulated Ticket Response Process

### **Text and Reference Books:**

1. L. Sabin-Wilson, *WordPress All-in-One For Dummies*, 4th ed., Hoboken, NJ, USA: Wiley, 2022.
2. Williams, *WordPress for Beginners 2024: A Visual Step-by-Step Guide*, Independently Published, 2024.
3. D. Karlins, *Building Websites All-in-One For Dummies*, Hoboken, NJ, USA: Wiley, 2021.
4. J. T. Joseph, *WordPress Made Easy: Beginners Guide to Creating Your First Website or Blog*, Independently Published, 2021.
5. K. McGraw, *WordPress for Beginners: Build, Design, and Launch Your WordPress Site Without Coding*, TechPress, 2020.
6. *Visual Quick Start Guide - WordPress*, Jessica Neuman Beck, Matt Beck, Pearson Publication
7. *Getting-Started-with-WordPress-eBook*, iThemes Media
8. *WordPress Tutorial for Beginners*, Julius, wpbrix
9. *WordPress for Dummies*, Lisa Sabin - Wilson, Wiley Publication
10. *How to create blog ? [Gujarati book]*, <http://edusafar.com>

**Course Outcome:** By the end of the course, students will be able to

- Understand concepts, types of CMS and use the open-source Content manager - WordPress blogging platform.
- Set up and manage a basic WordPress website.
- Create, format, and publish different types of digital content.
- Design and customize a WordPress site for blogging, portfolio, or educational purposes.
- Apply basic digital ethics, SEO practices, and analytics in content management.

### **Mode of Evaluation:**

The competent authority of Gujarat University has established a pattern for the assessment/evaluation of Theory and Practical examinations. Adherence to this pattern is mandatory.

### **Assessment Tools:**

Following Assignments (Anyone) can be given to the students for the purpose of internal assessment.








- Basics of CMS
- Understand the evolution of WordPress and its fundamental principles.
- Familiarize with word press's environment and basic functionalities.
- Create a simple web site / blog using basics of WordPress.

### **FBLD (Flip Blended Learning Design Template)**





- Any One Unit from the above syllabus can be discussed by the faculty through online mode.
- Online mode can be SWAYAM MOOC Course or any other suggested by the UGC or Gujarat University.

## MOOC Courses

### (a) E-Learning Platforms / MOOCs

-  **LinkedIn Learning** – *WordPress Essential Training*
-  **Coursera** – *Digital Media, SEO, Web Design Basics*
-  **Udemy** – *WordPress for Beginners: Build Your Website*
-  **YouTube Channels:**
  -  [WPCrafter](#)
  -  [Ferdy Korpershoek](#)
  -  [Darrel Wilson](#)

### (b) Tools and Plugins (Hands-On Practice)

-  **WPForms / Contact Form 7** – For query forms
-  **Elementor Page Builder** – For drag-and-drop design
-  **Yoast SEO Plugin** – For search engine optimization
-  **Unsplash / Pixabay** – For royalty-free images

### (c) Online Resources

- Free platforms: WordPress.com (free tier), 000webhost, or local tools like XAMPP.
- Tutorials: WPBeginner (<https://www.wpbeginner.com>), WordPress Codex (<https://codex.wordpress.org>).
- Accessibility tools: WAVE (<https://wave.webaim.org>).
- [WordPress.org Documentation & Support](#)
- [WordPress.com Learning Platform](#)
- [Yoast SEO Academy \(Free Courses\)](#)
- [Canva Design School – Free Visual Design Tutorials](#)

**NOTE:**

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2. The duration of each Theory and Practical session is 55 minutes.
3. The maximum batch size for any computer related subject in any division of each semester for theory session is 60 students.
4. Contact Hours: 45–60 hours (lectures, practical's, and self-study).
5. The batch size of practical session for any computer related subject in any semester is 15-20 students.
6. Any type of computer related subject can be offered in English / Gujarati or both Mediums.
7. The Theory and Practical sessions (workload) shall be applicable for English and Gujarati (both) medium separately.
8. The number of Minimum / Maximum of practical sessions shall be considered as per the framework and credits defined under the policy NEP 2020.
9. Minimum of 75% attendance is required to appear for the practical examination.
10. Minimum practical exercises must be completed by students before the examination.
11. The submission of computer journal for the respective subjects is mandatory for all the students of computer.
12. The certified journal by the competent authority of the college needs to be presented by students at the time of practical examination.
13. The submission of assignments and presentation is mandatory as per the norms laid down by the competent authority of Gujarat University under NEP 2020.
14. Students must appear in both the theory and practical examination of each term in the Internal and External examination.
15. The evaluation pattern for the weightage in Internal and External examination shall be considered as per the policy framed by the Gujarat University.

**GUJARAT UNIVERSITY**  
**COMPUTERAPPLICATIONS SYLLABUS FOR BA**

**SEMESTER V**

**CORE COURSE CODE: DSC-C COMP –355**

**Discipline specific course –Minor**

**COURSE NAME: INTRODUCTION TO DATA BASE MANAGEMENT SYSTEM**

**COURSE OBJECTIVE:**

This course introduces the fundamental principles of databases and data management using Microsoft Access and Structured Query Language (SQL). It equips students with practical skills to store, manage, retrieve, and analyze information. Emphasis is placed on developing real-world problem-solving abilities in fields like education, administration, business, and communication.

**Pre-requisite** – Student should have primary understanding of the basics of Database management system DMBS

**UNIT I: Database Concepts and Introduction to MS Access**

- What is a Database? Importance in real-world applications
- Difference between File System and DBMS
- Types of Databases: Flat File, Relational
- Introduction to MS Access Interface
- Understanding Tables, Fields, Records
- Data Types: Text, Number, Date/Time, Currency, Yes/No
- Creating a Database: Using Wizard and Design View
- Creating Tables and Setting Field Properties
- Defining Primary Keys and Field Constraints
- Saving and Opening Database Objects

**UNIT II: Data Entry, Table Management & Relationships**

- Adding, Editing, and Deleting Records using Datasheet View
- Sorting, Filtering, and Searching within Tables
- Importing and Exporting Data (Excel, CSV, etc.)
- Editing Table Structure (Design View and SQL):
  - **ALTER TABLE** – Add, Modify, Delete Columns
- Creating Table Relationships: One-to-Many, Referential Integrity
- Understanding Normalization (Introductory level)
- Practical case: Creating student or inventory databases with relationships

**UNIT III: SQL Queries and Data Manipulation**

- Introduction to SQL: Structure and Purpose
- Writing SQL Queries in MS Access (SQL View)

**A. Data Manipulation Language (DML):**

- **INSERT INTO** – Adding records
- **UPDATE** – Modifying data
- **DELETE** – Removing records

**B. Data Querying using SELECT:**

- **SELECT** – Retrieving records
  - Using **WHERE, ORDER BY, GROUP BY, HAVING, DISTINCT, BETWEEN, LIKE, IN, IS NULL**
- Logical Operators: AND, OR, NOT
- Comparison Operators: =, <>, >, <, <=, >=

**C. Table Structure Modification (DDL):**

- **ALTER TABLE** – Add/Drop columns
- **DROP TABLE, CREATE TABLE** (basic syntax)

**D. Use of Built-in Functions in Queries:**

- Aggregate: *SUM, AVG, COUNT, MIN, MAX*
- Text: *LEFT, RIGHT, MID, LCASE, UCASE, LEN, TRIM*
- Date: *DATE(), DAY(), MONTH(), YEAR()*
- Numeric: *ABS, ROUND, INT*

**E. Multi-table Queries (Joins):**

- **INNER JOIN** and simple multi-table SELECT

**UNIT IV: Forms and Reports for Data Presentation**

**A. Forms in MS Access**

- Creating Forms using Form Wizard and Design View
- Using controls: Labels, Text Boxes, Combo Boxes
- Navigating and Filtering Data in Forms
- Formatting and Input Validation in Forms

**B. Reports in MS Access**

- Creating Reports using Wizard and Design View
- Types: Tabular, Columnar, Grouped, Summary
- Grouping, Sorting, and Totals in Reports
- Inserting Calculated Fields and Expressions
- Creating Mailing Labels and Exporting to PDF
- Real-life example: Designing a report card or customer invoice

**Text and Reference Books:**

1. V. Pandya, *Computer Application IV*. Ahmedabad, India: HK Arts College Publications, [in Gujarati].
2. G. N. Jani, *Introduction to MS Access, HTML, Networking and Internet*. Ahmedabad, India: Akshar Publications, [in Gujarati].
3. S. Saxena, *MS Office 2000 for Everyone*. New Delhi, India: Vikas Publishing House, 2000.
4. BPB Editorial Board, *MS Access Tutor*. New Delhi, India: BPB Publications.
5. M. Alexander and D. Kusleika, *Microsoft Access 2016 Bible*. Hoboken, NJ, USA: Wiley, 2015.

**COMPUTER APPLICATIONS- Minor**

6. C. Simmons, G. Hart-Davis, J. Kettell, and J. Kettell, *Microsoft Office 2003: The Complete Reference*. Berkeley, CA, USA: Osborne/McGraw-Hill, 2003.
7. G. N. Jani, *Computer Applications II*. Ahmedabad, India: Akshar Publications.
8. BPB Editorial Board, *Successful Projects in Access*. New Delhi, India: BPB Publications.
9. BPB Editorial Board, *Multimedia and Web Design Course*. New Delhi, India: BPB Publications

**Course Outcomes:**

Upon successful completion, students will be able to:

- Understand relational database concepts and terminology
- Create databases, define tables, and manage data efficiently
- Use SQL to insert, update, delete, and retrieve data
- Write conditional and structured queries using logical and comparison operators
- Modify database structures using SQL
- Create and manage forms and reports for professional data presentation

**Mode of Evaluation:**

The competent authority of Gujarat University has established a pattern for the assessment/evaluation of Theory and Practical examinations. Adherence to this pattern is mandatory.

**Assessment Tools:**

Following Assignments (Anyone) can be given to the students for the purpose of internal assessment.

- Basics of Data based management
- Use and features of data, table
- Types of Data, how to create and manage data
- Use of SQL
- Queries, labels, form development using wizard
- Offline website and see results on browser

**FBLD (Flip Blended Learning Design Template)**

- Any One Unit from the above syllabus can be discussed by the faculty through online mode.
- Online mode can be SWAYAM MOOC Course or any other suggested by the UGC or Gujarat University.

**Taxonomy**




College can appoint any one of the Taxonomies as per their convenience.

1. Blooms Taxonomy – Revised
2. SOLO Taxonomy
3. Finks Taxonomy
4. 6Facets Taxonomy

### MOOC Courses

- Fundamentals of DBMS, RDMBS
- Basic learning of Database management system using ACCESS etc.

### Free & Open eBooks

1.  [Microsoft Access Tutorial PDF \(Tutorialspoint\)](#)  
A complete downloadable guide covering all basics to intermediate features.
2.  [MS Access Notes – NIOS e-Book](#)  
Simple government-published guide from the National Institute of Open Schooling (NIOS).
3.  [Access 2016 Quick Start Guide \(Microsoft\)](#)  
Official 2-page beginner's manual from Microsoft Office.

### Online Learning Platforms

Platform	Features	Link
<b>GCFGlobal.org</b>	Free, beginner-friendly MS Access tutorials	<a href="https://edu.gcfglobal.org/en/access/">https://edu.gcfglobal.org/en/access/</a>
<b>Microsoft Learn</b>	Official training platform with exercises	<a href="https://learn.microsoft.com/en-us/training/">https://learn.microsoft.com/en-us/training/</a>
<b>Coursera</b>	University-grade courses (Free audit option)	<a href="https://www.coursera.org">https://www.coursera.org</a>
<b>Udemy</b>	Practical courses on MS Access and SQL (often discounted)	<a href="https://www.udemy.com">https://www.udemy.com</a>

## COMPUTER APPLICATIONS- **Minor**

### List of Practical exercises:

#### DBMS (MS-ACCESS)

- Create and structure a multi-table database (e.g., Library or Staff Database)
- Use SQL to INSERT, UPDATE, DELETE, and SELECT data with conditions
- Design queries to retrieve summarized and filtered information
- Create forms for simplified data entry
- Generate professional reports and labels for presentation

1) Create the following tables with given structure and specifications:

1. Customer master table: **cust**

Column Name	Format	Remarks
<u>cust_id</u>	text(3)	primary key, not null
<u>lname</u>	text (15)	
<u>fname</u>	text (15)	
<u>area</u>	text (15)	
<u>phone_no</u>	number(9)	

2. Movies master table: **movie**

Column Name	Format	Remarks
<u>mv_no</u>	number(2)	primary key, not null
<u>title</u>	text (25)	
<u>type</u>	text (10)	
<u>star</u>	text (25)	
<u>price</u>	text (8,2)	

3. Invoice transaction table: **invoice**

Column Name	Format	Remarks
<u>inv_no</u>	text (3)	primary key, not null
<u>mv_no</u>	number(3)	
<u>cust_id</u>	text(3)	
<u>issue_date</u>	date	
<u>return_date</u>	date	

**COMPUTER APPLICATIONS- Minor**

Ex. 2 Insert the following data into their respective tables:

Data for **custtable**:

Cust_id	Lname	Fname	Area	Phone_no
a01	Bayross	Iran	sa	6125467
a02	Saitwal	Vandana	mu	5569763
a03	Jaguste	Parmada	da	5324252
a04	Navindgi	Basu	ba	7734633
a05	Curies	Tammy	da	7845234
a06	Daglas	Creains	ba	7545233

Data for **movie** table:

mv_no	title	type	star	price
1	Bloody vengeance	action	Jackie chan	180
2	The firm	thriller	Tom cruise	200
3	Pretty woman	romance	Richard gere	150
4	Home alone	comedy	Maculae culkin	150.5
5	The fugitive	thriller	Harrison ford	200
6	Coma	suspense	Michael Douglas	100
7	Dracula	horror	Gary oldman	150
8	Quick change	Comedy	Bill Murray	100
9	Gone with the wind	drama	Clarke gable	200
10	Carry on doctor	Comedy	Lislie Phillips	100

Data for **Invoice** table:

Data for invoice table:				
Inv_no	mv_no	Cus_id	issue_date	return_date
i01	4	a01	23-jul-02	29-jul-02
i02	3	a02	12-aug-02	15-aug-02
i03	1	a03	15-Jun-02	29-Jun-02
i04	6	a04	10-sep-02	28-sep-02
i05	7	a06	05-aug-02	05-aug-02
i06	2	a05	18-jun-02	21-jun-02
i07	9	a05	07-jul-02	28-jul-02
i08	9	a01	11-aug-02	28-aug-02
i09	5	a03	06-jul-02	06-aug-02
i10	8	a06	03-sep-02	06-sep-02

**Single Table Retrieval**

1. Find out the names of all the customers.
2. Print the entire movie table.
3. Retrieve the list of first names and phone numbers of all the customers.
4. Print the list of all movie titles whose price is more than Rs. 150/-
5. Print the information from the invoice table of customers who have not been issued movies in the month of July.
6. Display the invoice table information for cust\_id 'a01' and 'a02'.
7. List the movie title in descending order of their titles along with its price.
8. Print the names and types of all the movies except horror movies.
9. List the names, area and cust\_id of customers without phone numbers.
10. List the names of customers without lname.
11. List the mv\_no and inv\_no of customers having issues date is more than 01-July 2002.

**Using Special Operators:**

12. Find the names of all customers having 'a' as the second letter in their names.
13. Find the last name of all customers whose name begins with 's' or 'j'.
14. Find the last names of all movie titles having 'O' as second letter.
15. Find the first and last names of all customers that belong to 'sa' area.
16. Find out the customers who stay in an area whose second letter is 'a'.
17. List the mv\_no, title and type of movies whose starts beginning with letter 'm'.
18. Print the list of all customers who stay in the area 'da' or area 'mu' or area 'gh'.
19. Find the movies of type 'action', 'Suspense' and 'comedy'.
20. Find the movies whose price is greater than 150 and less than or equal to 200.

**Having and Group By, Set Function and Concatenation:**

21. Find the number of movies in each type.
22. Count separately the number of movies in the 'comedy' and 'thriller' type.
23. Count separately the average price for each type that has a maximum price of 150.00.
24. Calculate the average price of all movies where type is 'Suspense' or 'thriller' and price is greater than or equal to 150.00.
25. List the various movie types available from the movie table in ascending order.
26. Count the total number of movies.
27. Calculate the total price of all the movies.
28. Calculate the average price of each type of movie.
29. Find out the maximum and minimum prices of each type of movie. Rename the title max\_price and min\_price respectively.
30. Count the number of movies having price greater than or equal to 150.



## COMPUTER APPLICATIONS- Minor

31. Print the type and information of invoice table in the following format for all records:
- The Invoice No. of Customer Id. {cust\_id} is {inv\_no} and Movie No. is {mv\_no}
  - {cust\_id} has taken Movie No.{mv\_no} on {issue\_date} and will return on {return\_date}.
32. To concatenate the first name column to the area column.

### **Modifying structure of Tables and Record Updatons:**

33. Insert following more records into the table movietemp.

<u>mv_no</u>	<u>title</u>	<u>type</u>	<u>star</u>	<u>price</u>
1.	Terminator-3	action	arnold	200.00
2.	Die-hard	action	Bruce Willis	150.00
3.	First Blood	action	sylvesterstallone	150.00
4.	Superman	cartoon	Christopher Reed	175.00
5.	God father	action	Marlyn Brando	180.00
6.	Matrix Reloaded	action	Keanu Reeves	200.00
7.	Cllif Hanger	Adventure	Sylvester stallone	180.00
8.	Die another day	action	Pierce brosnan	200.00
9.	Gladiator	action	Russell Crowe	250.00
10.	Armor of God	action	Jackie Chan	200.00

34. Change the telephone number of pramada to 466389.  
35. Change the issue\_date of cust\_id 'a01' to 24/07/02.

### 36. **Forms Exercises:**

- Create a data entry form using Form Wizard and Design View
- Design a form with combo boxes and dropdown lists for easy selection
- Add navigation controls for moving between records
- Apply formatting and input validation rules
- Create a search form with filter criteria (e.g., by course or student name)

### 37. **Reports Exercises:**

- Generate a tabular report showing student performance grouped by course
- Create summary reports with total and average marks
- Insert calculated fields in reports (e.g., Grade = IIF(Marks > 60, "Pass", "Fail"))
- Format reports for printing (e.g., headers, footers, alignment)
- Design and print address label reports using Label Wizard
- Export reports as PDF for email or digital distribution

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